

Environmental and Social Compliance Audit Report

Project Number: 53027-001
June 2019

PRC: New Hope Liuhe Integrated and Sustainable Livestock Value Chain Project (Xiangzhou Pig Breeding Farm)

Prepared by New Hope Liuhe for the Asian Development Bank.

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1.1 Subproject #3 – Xiangzhou Pig Breeding Farm

1.1.1 Details of Site Visit

Site visit to Xiangzhou Pig Breeding Farm was carried out on 20 June 2019. The due diligence team interviewed the Project Manager for Operation and the General Manager of Guangxi.

1.1.2 Subproject Background

Location. Xiangzhou Pig Breeding Farm (“Xiangzhou subproject”) is located in the Dameng Village, Xiangzhou County, Laibin City, Guangxi Zhuang Autonomous Region. The project company leased the land from local government. The site occupies around 1,378,667 m². The on-site facilities will comprise 5 pig sheds for sows (3,000 heads each), one pig shed for boars (300 heads), isolation sheds, breeding shed, transfer zone, disinfection zone, staff residential zone, office, staff canteen, etc. The sensitive receivers listed in the EIA report are summarized as follows. **Figure 3.3** below shows the location of the subproject site.

No.	Sensitive Receivers	Location	Distance from Site Boundary (m)	Distance from Pig Sheds (m)
1.	Zhilin Village	N	350	520
2.	Dameng Villange	SW	320	530
3.	Laoshipai Village	E	430	350
4.	Chaoyang Village	SW	1370	1780
5.	Qingling River	SW	2600	3050
6.	Fengshou Reservoir	E	900	980

Figure 3.1 Location Map of Xiangzhou Pig Breeding Farm



Source: EIA

Subproject Description. The subproject is operated by Xiangzhou Xinhao Agropastoral Company Limited ("Huanghua Xinhao Agropastoral"), a wholly-owned subsidiary of New Hope Liuhe. The total investment was 379.08 million RMB, where environmental protection investment accounted for 12.93 million RMB. The estimated annual pig production is around 375,000 heads. The construction is estimated to be completed in May 2020.

1.1.1 Subproject Audit Findings (Environmental)

Table 3.1 Summary of Environmental Issues of Xiangzhou Pig Breeding Farm

No.	Concerned Item	Relevant Regulation(s) and/or Standards(s)	Comments / Gaps Identified
1.	Environmental Impact Assessment	<ul style="list-style-type: none"> ADB SPS 2009 Environmental Impact Assessment Law of PRC 	<p>An EIA Report was prepared on September 2018 and the EIA approval was obtained from Xiangzhou County Environmental Protection Bureau on 15 October 2018.</p> <p>Gaps identified: None.</p>
2.	Environmental Acceptance	<ul style="list-style-type: none"> Environmental Impact Assessment Law of PRC Measures for the Administration of Recordation of Registration Forms of Environmental Impact of Construction Projects 	<p>The subproject is currently under construction phase. The environmental acceptance inspection will be conducted before commencement of operation.</p> <p><i>Gaps identified:</i> None.</p>
3.	Physical Cultural Resources	<ul style="list-style-type: none"> ADB SPS 2009 	<p>The EIA did not identify any major threats to any archaeological sites.</p> <p><i>Gaps identified:</i> There is no Chance Find Procedure</p>
4.	Operation Permits and Licenses	<ul style="list-style-type: none"> Environmental Protection Law of PRC Measures for the Examination of Animal Epidemic Disease Prevention Conditions 	<p>The Operating License has not yet been obtained as the subproject is still under construction. According to the interview with the Project Manager for Operation, Animal Epidemic Prevention Qualification will be obtained from the Animal Health Inspection Bureau before the commencement of operation.</p> <p><i>Gaps identified:</i> None.</p>
5.	Groundwater	<ul style="list-style-type: none"> WBG General EHS Guidelines 	<p>According to the EIA, treated water will be used for irrigation and will not cause adverse impacts on the groundwater quality. The baseline groundwater quality complies with the Standard for Groundwater Quality (GB/T14848-2017) Class 3 standard except for total</p>

		<ul style="list-style-type: none">Standard for Groundwater Quality (GB/T14848-2017)	<p>coliform bacteria. According to baseline study of the EIA, the exceedance of coliform bacteria is due to domestic wastewater leakage from the surrounding villages.</p> <p>Based on the Risk and Emergency Plan, following measures should be taken: 1) prevent leakage in manure processing area, wastewater storage pond, and pig sheds through the building of impervious layers; 2) set up a groundwater testing pit at the downstream of the site to conduct regular testing on groundwater quality, etc.</p> <p><i>Gaps identified:</i> Groundwater will be monitored per EIA but only annually, it should be at least quarterly.</p>																													
6.	Noise	<ul style="list-style-type: none">WBG General EHS GuidelinesEmission Standard for Industrial Enterprises Noise at Boundary (GB12348-2008)Environmental Quality Standard for Noise (GB3096-2008)	<p>According to the EIA, the nearest sensitive receiver is Dameng Village, which is located 320m from the site boundary and 530m from pig sheds. The EIA estimated that day-time noise level complies with the Emission Standard for Industrial Enterprises Noise at Boundary (GB12348-2008) Class 1 standard after implementing mitigation measures with the following assumed mitigation measures in place: 1) use of quiet plant and working methods; 2) reducing the numbers of plants operating in areas close to sensitive receivers; 3) building noise screening structures; 4) controlling traffic noise by setting lower speed limit; and 5) prohibit construction work in night-time, etc. Night-time noise level estimated from the east, south, and west of the site boundary, however, will slight exceed the applicable national standard and the EHS Guidelines requirements by 0.34 to 1.39 dB(A) due to the fact that the baseline noise level already exceeded the applicable national standard and the EHS Guidelines requirements by 0.1 to 1.2 dB(A). By comparing the baseline and the EIA's estimated noise level at operation, it is noted that the increase in background level is 0.24 dB, which is less than the EHS Guidelines requirement of a maximum increase of 3dB and therefore the impact is considered insignificant.</p> <table><tr><th rowspan="2">Site Boundary</th><th colspan="2">Estimated Result from EIA Unit: dB(A)</th><th colspan="2">GB3096-2008 Class 2 Standard Unit: dB(A)</th><th colspan="2">EHS Guidelines – Residential Unit: dB(A)</th></tr><tr><th>Day</th><th>Night</th><th>Day</th><th>Night</th><th>Day</th><th>Night</th></tr><tr><td>North</td><td>53.33</td><td>43.89</td><td rowspan="4">55</td><td rowspan="4">45</td><td rowspan="4">55</td><td rowspan="4">45</td></tr><tr><td>East</td><td>54.33</td><td>46.39</td></tr><tr><td>South</td><td>53.93</td><td>45.34</td></tr><tr><td>West</td><td>51.61</td><td>46.15</td></tr></table> <p><i>Gaps identified:</i></p>	Site Boundary	Estimated Result from EIA Unit: dB(A)		GB3096-2008 Class 2 Standard Unit: dB(A)		EHS Guidelines – Residential Unit: dB(A)		Day	Night	Day	Night	Day	Night	North	53.33	43.89	55	45	55	45	East	54.33	46.39	South	53.93	45.34	West	51.61	46.15
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			Noise monitoring in accordance with EHS Guideline shall be conducted during construction phase and operation to ensure that the actual noise level does not exceed the EIA's estimate and all noise mitigation measures fully implemented.
7.	Waste management	<ul style="list-style-type: none"> • WBG General EHS Guidelines: Hazardous and Non-hazardous Waste • Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste • Law of the People's Republic of China on Animal Epidemic Prevention (2007) • Standard for Pollution Control on the Storage and Disposal Site for General Industrial Solid Wastes (GB18599-2001) • Discharge standard of pollutants for livestock and poultry breeding (GB18596-2001) • Technical standard of preventing pollution for livestock and poultry breeding (HJ/T81-2001) • Technical Specifications for Pollution Treatment Projects of Livestock and Poultry Farms (HJ497-2009) 	<p>Construction waste – Construction waste will be used as filling materials within the site as per EIA. No construction waste will be disposed off-site.</p> <p>Domestic waste – According to the approved EIA, domestic waste generated during construction and operation will be collected and delivered to the municipal sanitation services by qualified third-party.</p> <p>Manure – According to the interview with the Plant Manager, manure will be collected through scraping of solid floors (dry collection) as recommended in Technical Specifications for Pollution Treatment Projects of Livestock and Poultry Farms (HJ497-2009). All collected manure will be stored in a septic tank and will be transferred to enclosed composting reactors for fermentation. A 1300m² fermentation workshop, equipped with enclosed composting reactors, will be built. Bacteria in the manure will be eliminated by the change of temperature and moisture level during the fermentation process in the reactors. Thereby, manure will be converted to organic fertilizer after undergoing this non-hazardous treatment. The quality of the fertilizer will be able to comply with the Discharge standard of pollutants for livestock and poultry breeding (GB18596-2001). Leak control is implemented in the fermentation workshop. Leachate will be discharged to wastewater treatment plant through a confined pipeline. The wastewater treatment plant is equipped with a 1000m³ pond for emergency used.</p> <p>Part of the fertilizer will be sold to third-party, while part of it will be used for on-site farming.</p> <p>Animal Carcasses - The subproject will have two pig carcasses storage pits to handle pig carcasses on-site. The carcasses storage pit is a concrete structure which is able to prevent leachate to water course. According to the approved EIA and the interview with the Plant Manager for Operation, in the short-term, pig carcasses are disposed to the storage pits with impervious layers which will then be covered by Calcium Oxide, while in the long-term, pig carcasses will be stored in an appropriate container and removed by the government certified veterinary service station for non-hazardous treatment. Dead pigs will not be sold or used as feed for recycling.</p> <p><i>Gaps identified:</i> According to the interview with site staff, there is no testing on the quality of the fertilizer. As manure will be used as a fertilizer on agricultural land, regular monitoring of hazardous chemical and biological constituents should be conducted.</p>

		<ul style="list-style-type: none"> Hygienic Requirements for Harmless Disposal of Night Soil (GB7959-1987) WBG EHS Guidelines for Mammalian Livestock Production 	No waste monitoring is included in the environmental monitoring plan per EIA.																																				
8.	Wastewater (industrial process wastewater and its treatment, other wastewater streams)	<ul style="list-style-type: none"> WBG General EHS guidelines Water Pollution Prevention and Control Law of PRC (2008) Discharge Standard of Water Pollutants for Livestock and Poultry Breeding (GB18596-2001) Technical Specifications for Pollution Treatment Projects of Livestock and Poultry Farms (HJ497-2009) Standards of Irrigation Water Quality (GB5084-2005) 	<p>Wastewater generated from the site includes urine, piggery rinse water and domestic sewage. According to the EIA, livestock and domestic wastewater are mixed and treated in the on-site wastewater treatment station. The treatment processes include anaerobic digestion, sedimentation, A/O process and UV disinfection.</p> <p>Treated water will be used for on-site irrigation. According to the EIA approval, treated wastewater should meet the requirements in the Standards of Irrigation Water Quality (GB5084-2005). There is no regulatory or EIA requirement on testing the antibiotic residues of the effluent in accordance with WBS Standards.</p> <table border="1"> <thead> <tr> <th>Pollutants</th><th>Unit</th><th>IFC Effluent Standard</th><th>EIA Requirement</th></tr> </thead> <tbody> <tr> <td>COD</td><td>mg/l</td><td>250</td><td>150</td></tr> <tr> <td>BOD</td><td>mg/l</td><td>50</td><td>60</td></tr> <tr> <td>TN</td><td>mg/l</td><td>10</td><td>/</td></tr> <tr> <td>TP</td><td>mg/l</td><td>2</td><td>8</td></tr> <tr> <td>Oil and grease</td><td>mg/l</td><td>10</td><td>5</td></tr> <tr> <td>SS</td><td>mg/l</td><td>50</td><td>80</td></tr> <tr> <td>Coliform bacteria</td><td>MPN/100ml</td><td>400</td><td>1000</td></tr> <tr> <td>Active Ingredients/Antibiotics</td><td></td><td>To be determined</td><td>/</td></tr> </tbody> </table> <p>According to the interview with the Project Manager for Operation, the subproject will carry out monthly wastewater testing. Besides, the local Environmental Protection Bureau will also test on the wastewater quality quarterly.</p> <p>Rainwater- stormwater and sewage separation system will be adopted.</p> <p><i>Gaps identified:</i> A monitoring program shall be established to test the antibiotic residues and other pollutants of the effluent for irrigation per national and IFC standards.</p>	Pollutants	Unit	IFC Effluent Standard	EIA Requirement	COD	mg/l	250	150	BOD	mg/l	50	60	TN	mg/l	10	/	TP	mg/l	2	8	Oil and grease	mg/l	10	5	SS	mg/l	50	80	Coliform bacteria	MPN/100ml	400	1000	Active Ingredients/Antibiotics		To be determined	/
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9.	Air emissions (odour, greenhouse gases and dust)	<ul style="list-style-type: none"> • WBG General EHS guidelines • Air Pollution Prevention and Control Law of the People's Republic of China (2015) • Emission Standards for Odor Pollutants (GB14554-1993) • Discharge standard of pollutants for livestock and poultry breeding (GB18596-2001) • Emission standards of air pollutants for catering industry (GB18483-2001) • Emission Standard of Air Pollutants for Boiler (GB13271-2014) 	<p>Dust – According to the site visit, it was observed that there was no or limited dust control during site levelling activities.</p> <p>Odor – Sources of odour include ammonia and H₂S generated by manure and the pigs. According to the approved EIA, 95% of odour is removed after implementing the following mitigation measures:</p> <ul style="list-style-type: none"> • Sufficient ventilation of the pig sheds; • Punctual dry collection of manure; • Feed composition to reduce odour generation; • Covered wastewater treatment station; • Use of deodorants to prevent odour generated from pig shed. <p>Boiler Emissions - H₂S from biogas is removed by dry desulfurization system with the use of desulfurizer (e.g. Fe₂O₃). The desulfurized biogas will then be treated by plasma deodorizer. By comparing this subproject's and Huanghua Subproject's wastewater levels as stated in the EIA reports, this subproject generates approximately 15% more wastewater than Huanghua. Considering similar wastewater treatment and biogas capture processes are used in both projects, it is estimated that this project will generate more biogas at a similar scale.</p> <p>Referring to the NO_x and SO₂ emissions generated from the boiler in the Huanghua subproject which total annual emissions of SO₂ and NO_x are estimated to be 0.415 tonnes and 1.66 tonnes respectively the level of NO_x and SO₂ emissions for Xiangzhou are unlikely to reach the thresholds and be defined as significant source according to the IFC General EHS Guidelines, i.e. NO_x: 500 tpy; SO₂: 500 tpy.</p> <p>According to the air modelling result of the EIA, the subproject is expected to comply with the Emission Standards for Odour Pollutants (GB14554-1993) and the Discharge Standard of Pollutants for Livestock and Poultry Breeding (GB18596-2001).</p> <p>Oily fume and cooking odour emissions from cooking activities are the major sources of air emission during operation. According to the EIA, fume purifiers will be installed to treat the oily fume and cooking odour before discharging into the atmosphere. Testing result from the EIA shows that the treated fume is able to comply with the requirements in the Emission standards of air pollutants for catering industry (GB18483-2001).</p> <p><i>Gaps identified:</i> There was no or limited dust control during site levelling activities. According to the EIA Report, there should be mitigation measures on site formation (e.g. dust control) in place.</p>
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			As per interview, there will be no testing on odour during operation. It is required in the environmental management plan of the approved EIA for the subproject to monitor ammonia, H ₂ S, and odour at the site boundaries quarterly.
10.	Hazardous materials (use of pesticides, integrated pest management, good management practices)	<ul style="list-style-type: none"> • WBG EHS Guidelines for Mammalian Livestock Production: Hazardous Materials • Directory of National Hazardous Wastes (2016) 	<p>Veterinary Waste includes used chemical bottles, medical packaging materials, syringe, etc. According to the approved EIA and the interview with site staff, veterinary waste will be stored in an appropriate container and removed by qualified third-party regularly. An operation manual, which includes instructions on veterinary waste handling, has provided to the Consultant.</p> <p>A corporate level management program to control the usage of hazardous materials and prevent the workforce from exposing to hazardous materials has been established by New Hope Liuhe. Emergency Response Plan has also been established in case of over-dosing, over-exposure and/or accidental spillage of hazardous materials. Relevant documents have provided to the Consultant.</p> <p>Regarding pesticide management, the project company has introduced the use of different types of pesticide to the workers in the pre-operation training. Responsible personnel are appointed for the monitoring the use of each type of pesticide. An operation manual on the volume, frequency and area of usage was provided for the Consultant's review.</p> <p><i>Gaps identified:</i> Nil</p>
11.	Animal diseases	<ul style="list-style-type: none"> • WBG EHS Guidelines for Mammalian Livestock Production: Animal Diseases • Animal Epidemic Prevention Law of the People's Republic of China 	<p>According to the interview with the Plant Manager for Operation, Animal Epidemic Prevention Qualification will be obtained from the Animal Health Inspection Bureau after construction is complete. A corporate level Emergency Response Plan for animal disease has been established, which includes disease identification, reporting mechanism, responsible parties, handling procedures, etc.</p> <p>According to the EIA, the project company will sign the Animal Epidemic Prevention Agreement, the Animal Epidemic Reporting Agreement, and the Animal Epidemic Handling Agreement with Xiangzhou Aquatic Animal Husbandry and Veterinary Bureau. The project company will report to Xiangzhou Aquatic Animal Husbandry and Veterinary Bureau whenever epidemic is identified. For severe epidemics, Xiangzhou Aquatic Animal Husbandry and Veterinary Bureau is responsible for the transport and treatment of the affected pigs.</p> <p>Prevention measures (biosecurity) – Details on the control of access by humans and vehicles have been discussed in the Operation Manual for Pig Breeding. Vehicles, for pig</p>

			<p>transport purpose, are required to sanitize after duties. On-site hygiene staffs and veterinarians are responsible for the monitoring of the sanitizing work. The cleaning procedures are discussed in the Operation Manual for Pig Breeding. Other vehicles (e.g. personal vehicles) are not allowed to enter the site. Truck drivers are also required to go through sanitization process after duties. Instructions on the quarantine periods of pigs/humans has also been discussed. Sick and injured pigs will be isolated from the pig sheds.</p> <p>Sanitization – Instructions on sanitization, including the procedure and frequency of sanitization for housing areas and transporting vehicles, have been included in the Operation Manual for Pig Breeding. Housing areas will be sanitized weekly. Workers are required to fill in the Sanitation Form after cleaning. The descriptions on the use of different types of disinfectant have been included.</p> <p>Vaccination and medicines– The instructions on the use of different types of vaccine have been discussed in the Operation Manual for Pig Breeding. Vaccinated pigs will be recorded.</p> <p>Monitoring of animal health – On-site veterinarians and workers will be responsible for the monitoring of animal health. Random sample testing will be conducted monthly. Sick or injured pigs, which required remedial action, will be marked to track their health conditions. Instructions on animal health monitoring are included in the Operation Manual for Pig Breeding.</p> <p>Staff capacity per facility – There will be 4 veterinarians on-site.</p> <p><i>Gaps identified:</i> None.</p>
12.	Occupational Health & Safety	<ul style="list-style-type: none"> • WBG EHS Guidelines for Mammalian Livestock Production: Occupational Health and Safety • WBG General EHS Guidelines • the Technical Code for Safety of Temporary Electrification on construction site (JGJ46-2005) 	<p>Construction phase – An Occupational Health and Safety Management System has been established by the project company. The system covers the organizational structure, responsibilities of each parties, reporting mechanism and procedure, safety monitoring plan, work-related incidents investigation procedure, on-site flammable chemical materials control, PPE management, fire safety, workplace accident precaution, safety training requirements, etc. The system has made reference to national requirements, including the Safety Technical Practices for Construction Workers (建筑安装工人安全技术操作规程), the Technical Code for Safety of Temporary Electrification on construction site (JGJ46-2005) (施工现场临时用电安全技术规范), and the Standard for Construction Safety Inspection (JGJ59-2011) (建筑施工安全检查标准).</p>

		<ul style="list-style-type: none"> the Standard for Construction Safety Inspection (JGJ59-2011) 	<p>The system has also covered environmental management requirements (noise control, wastewater control, dust control, chemical materials management) during construction phase.</p> <p>Emergency Response Plan with scenarios, responsibilities, reporting hierarchy and documentation, responsive actions, equipment requirement etc for construction phase has been provided for the Consultant's review.</p> <p>The subproject has appointed a third-party construction project management authority who will also supervise the occupational safety during construction phase. The monitoring records and the proposed corrective actions from the construction project management authority have provided to the Consultant. Periodic safety meeting was held by the construction project management authority, contractor, and the Xiangzhou Xinhao Agropastoral.</p> <p>Operation phase – The Safety Production Management System is established and included in the Operation Manual for Pig Breeding, which covers safety training, operational safety requirements, traffic safety, animal epidemic prevention, etc.</p> <p><i>Gaps identified:</i> No specific accommodation requirement for workers on-site.</p> <p>Detailed in the CESMP and OESMP with monitoring methods, frequency, locations, parties and budget including training plan.)</p>
13.	Community Health & Safety	<ul style="list-style-type: none"> WBG EHS Guidelines for Mammalian Livestock Production: Community Health and Safety WBG General EHS Guidelines 	<p>Construction phase – According to the approved EIA Report, the impacts of construction work on residential areas are limited after the implementation of various mitigation measures. According to the interview with site staff, there were no complaints from the residential area so far.</p> <p>Operation phase – Food safety is the key aspect to be considered regarding community health and safety. According to the interview with the General Manager of Guangxi, use of antibiotics and other chemical and biological substances is strictly regulated by the project company. Antibiotics are given only for treatment. Relevant training and instructions will be provided to ensure responsible and correct use. Based on the document provided by the subproject, reproductive hormones are used for sows to support pregnancy. The document lists out the types (e.g. PG600), volume, purpose, and frequency of each reproductive hormone. No growth hormones are used. According to our interview with New Hope, feed formulation is designed to minimize the amount of manure produced and to reduce</p>

			<p>chemical/ biological ingredients of manure. Low-protein, amino acid-supplemented diets is designed to reduce the amount of nitrogen excreted.</p> <p><i>Gaps identified:</i> None.</p>
14.	Ecological impacts	<ul style="list-style-type: none"> • WBG EHS Guidelines for Mammalian Livestock Production: Ecological Impacts • Technical Standard of Preventing Pollution for Livestock and Poultry Breeding (HJ/T81-2001) 	<p>Site visit and EIA review did not identify any major threats to biodiversity and habitats. The nearest identified habitat is Fengshou Reservoir, which is 980m from the site.</p> <p><i>Gaps identified:</i> None.</p>
15.	Environmental Management Plan (including contractors / sub-contractors' construction / site specific EMP)	<ul style="list-style-type: none"> • ADB SPS 2009 	<p>The WBG EHS Guidelines for Mammalian Livestock Production calls for the implementation of environmental monitoring programs to address all activities that have been identified to have potentially significant environmental impacts during normal operations and upset conditions. The EIA Report proposed an EMP and monitoring plan for the subproject.</p> <p>Construction contractor has also established an CESMP for construction period. It has been included in the tender document. Mitigation measures and the institutional arrangements for implementation have been included; however, there is no cost estimates or budget plan for the monitoring work and the implementation of mitigation measures</p> <p><i>Gaps identified:</i> The CESMP does not include cost estimates or budget plan for the monitoring work and the implementation of mitigation measures. It will also have to include management and monitoring of: chance find procedures, noise, dust, health and safety monitoring (including workers accommodation), grievance records etc.</p> <p>OESMP in EIA will be revised to include additional monitoring items including groundwater monitoring per EIA, noise and odour monitoring, manure and waste monitoring, effluent, with specified standards as identified earlier in this table, with budget and management structure.</p>
16.	Meaningful Consultation	<ul style="list-style-type: none"> • ADB SPS 2009 	<p>According to the approved EIA Report, publicly information disclosures (online and board notice) and questionnaires had conducted during the public consultation period. Survey</p>

	and Grievance Redress Mechanism	<ul style="list-style-type: none"> Interim Measures on Public Participation in Environmental Impact Assessment (2006) 	<p>result showed that 98.5% of the respondents from surrounding villages agreed with the project. Yet one villager from Zhilin Village disagreed with the project due to the environmental impact on air quality, wastewater and noise. According to the interview, the subproject will: 1) enrich villagers' knowledge on modernized pig breeding farm by promoting the use of advanced technology on wastewater treatment, manure treatment, and other advanced environmental facilities; 2) strengthening environmental monitoring; 3) ensure timely report to surrounding communities when severe environmental accidents occur.</p> <p>Huanghua Xinhao Technology has established a reporting hotline for resolving complaints about its environmental performance.</p> <p>There is a grievance reception channel with contact details but no procedures on how grievance will be handled.</p> <p><i>Gaps identified:</i> Regular engagement with the surrounding communities should be conducted during construction and operational phase. An engagement plan should be developed.</p> <p>Regarding the Grievance Redress Mechanism, no documented process on the follow-up actions has been established.</p>
17.	Contingency and emergency response plan	<ul style="list-style-type: none"> Emergency Response Law of the People's Republic of China ADB SPS 2009 WBG General EHS Guidelines 	<p>A project company level ERP for construction and operation has been established and provided for the Consultant's review. The ERP for construction and operation has discussed risk identification, risk control measures, management arrangements for implementation, responsibilities, contact information of the responsible personnel, organizational structure, list of emergency equipment, reporting procedures, list of different types of emergency and the corresponding response measures, etc.</p> <p>The EIA has proposed a Risk and Emergency Management Plan. It has set out precautions and management measures in cases of severe weather (e.g. heavy rain), biogas explosion or leakage, and potential groundwater contamination. Details are summarized as follows:</p> <ul style="list-style-type: none"> Biogas: 1) conduct regular checking to prevent leakage; 2) provide training on the safe use of electricity in accordance to national regulations, etc. Heavy rain: 1) regular maintenance on the wastewater treatment plant; 2) apply separate collection system for stormwater and sewage; 3) install awnings if necessary; 4) send out dedicated personnel to conduct checking on the wastewater treatment plant under severe weather.

			<ul style="list-style-type: none"> • Emergency storage pond: 1) establish a subproject company level water pollution prevention policy; 2) maintain a stand-by emergency storage pond; 3) timely remove silt from wastewater storage pond. • Groundwater: 1) prevent leakage in manure processing area, wastewater storage pond, and pig sheds; 2) set up a groundwater testing pit at the downstream of the site to conduct regular testing on groundwater quality, etc. <p>In general, the ERP complies with the ADB SPS requirements.</p> <p><i>Gaps identified:</i> None.</p>
18.	Staff Certifications and Trainings	<ul style="list-style-type: none"> • ADB SPS 2009 • WBG General EHS Guidelines 	<p>A Training Handbook for Pig Breeding is provided for the Consultant' review. The main objective of the it is to train and to ensure the implementation of Standard Operating Procedures (SOPs). Contents of the training include the basic technics and knowledges required in the whole breeding process. All new employees are required to complete the technical training.</p> <p>Topics on OHS and E&S are included in the Operation Manual for Pig Breeding. Relevant trainings (e.g. safety production, safe use of equipment, environmental management, vaccination, disinfection, testing, etc.) have been provided to workers. Records of past training plan on OHS and E&S have provided for the Consultant's review.</p> <p>According to the interview with site staff, all on-site veterinarians have to obtain the National Practicing Veterinary Certificate.</p> <p><i>Gaps identified:</i> No project-specific training plan at construction and operation.</p>
19.	Animal Welfare	<ul style="list-style-type: none"> • IFC Good Practice Note Improving Animal Welfare in Livestock Operations (2014) 	<p>Transport – The instructions on loading, transporting, and unloading of the pigs are documented in the Training Handbook for Pig Breeding. According to the Training Handbook for Pig Breeding, two trained workers should be monitoring the whole transporting process. Trained personnel should conduct final check before loading to ensure all pigs are fit to travel without unreasonable or unnecessary pain or distress. Casualty pigs will not be transported. Pigs will be moved with a flat “pig board” rather than with a stick.</p> <p>The subproject will only transport the pigs to a transfer station (中转站) where the buyer will be responsible for rest of the transport. During the transport of the weaner pigs, temperature will be controlled at around 28 degree Celsius by air conditioner. Air conditioning is needed for weaner pigs but not finisher pigs. Pigs will not be fed from the</p>

			<p>afternoon of the day before transport. The transporting routes will avoid any epidemic areas.</p> <p>Castration – According to the Training Handbook for Pig Breeding, the castration process should only be done by trained workers. Disinfection will be implemented before the castration process; however, no anaesthesia will be used.</p> <p>Housing system – Both pig stalls and group housing system will be constructed in the subproject. Stalls will allow space to stand and lie down comfortably; however, the space of a stall is not enough for pigs to turn around. There are bigger stalls for pigs expressing abnormal behavior. The sheds are designed, and operation practices are in place to prevent pigs from suffering heat stress or hypothermia. All surfaces and flooring will be non-slip, without sharp projections or edges likely to cause injury. Pigs will be stand on solid floor without straw.</p> <p>Genetic Selection –the breed and pedigree of pigs are considered to improve varieties and avoid inbreeding; to minimize the chances of inherited diseases; to breed pigs with higher stress resilience on long-distance transport. Modern equipment and intelligent environment control can better avoid the impact of climate on pigs.</p> <p>Feed and water – Sufficient feed and water will be provided which suited the pig's age and needs, to maintain normal health and productivity and to prevent hunger, thirst, malnutrition or dehydration. Relevant instructions and requirements on feed and water are included in the Training Handbook for Pig Breeding.</p> <p>Management of diseases and parasites - Diseases and parasites are prevented and controlled through standardized management practices. Animals with serious health problems will be isolated and treated promptly or killed humanely if treatment is not feasible or recovery is unlikely. Instructions on the management of diseases and parasites are discussed in the Training Handbook for Pig Breeding. For more details on the management of diseases, refer to topic No.8.</p> <p>Knowledge and skills of handlers – On-site handlers are trained with sufficient skills and knowledge to ensure that pigs are treated in accordance with the requirements discussed in the Training Handbook for Pig Breeding. Good stockmanship is encouraged.</p> <p>Slaughter - According to the Training Handbook for Pig Breeding, severely injured pigs will be slaughter in the least distressing and most pain-free manner possible by trained workers.</p>
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			<p>According to the interview with site staff, pigs are rendered unconscious by electrical stunning.</p> <p><i>Gaps identified:</i> To discuss with New Hope on feasible options to enhance animal welfare referencing good practices.</p>
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1.1.2 Subproject Audit Findings (Social)

Scope of Land Acquisition and Resettlement Impacts. The total area of the farm is 2,068.2 mu, including 694.4 mu farmland and 1,373.8 forest land. According to the EIA, there's no house demolition impact within the 500 meters buffer zone. 3 chicken houses owned by 3 persons are affected within boundary of the proposed farm.

During site visit, some graves were observed in nearby location of the farm, which will not be affected. These graves are 130 meters away from the boundary proposed farm. New Hope will build a wall for these graves and the existing access road will not be affected. Villagers will continue to access the graves of their families without restriction.

Graves in the nearby location of the Farm



History of Land Acquisition. New Hope signed the 2,068.2 mu land lease agreement with Dameng Village Committee of Shilong Township on 28 May 2018, and the agreement was also endorsed by the Shilong Township government. Land was leased from 80 HHs. The key provisions of this agreement include:

- (1) Land is leased from 1 August 2018 to 31 July 2038;
- (2) The agreed rental amount
- (3) The village committee needs to provide the bank account information of the villagers to New Hope

New Hope received the approval of Agricultural Facilities Land issued by Shilong Township Government on December 3, 2018.

It was verified that New Hope paid the rent on time. For the first year (1 August 2018-1 August 2019), New Hope paid the rent to the township government and then the government paid to the farmers. Since the 2nd year (after 1 August 2019), the rent will be paid to the villagers directly to the bank accounts of the villagers by New Hope. The audit consultant reviewed all the receipts and payment record.

For the 3 chicken houses, house demolition and land lease agreements were signed on 28 May 2018. Compensation was finalized based on local regulations and market value appraisal and negotiation. New Hope paid the compensation to the government firstly and all compensation was paid to the 3 owners within one week after they signed the agreements. The chicken houses were demolished in March 2019, to ensure they have enough time to find new site. The 3 owners have used the old materials and compensation to rebuild bigger chicken houses in other places to get higher income.

Most of the land leased to New Hope was reclaimed wasteland since 1980s. The main crops are sugar cane and peanut. The gross income from the land was about 700-800 yuan per mu per year. The final rent has been finalized based on negotiation and are comparable with the land rents for local similar projects such as lease land by companies for planting sugar cane. So after land lease, the farmers can get the higher cash income without any labor inputs. Also, they still have cultivated land, so land lease will not affect their agriculture and food production. The village interviewed shared that many of the villagers have used the rents for the education of their children.

Indigenous Peoples. Xiangzhou is a Zhuang concentrated county. Ethnic minority population is 245,000 which accounts for 70 % of the total population. Zhuang has been integrated with Han people, and they all speak the same language as Han. They do not face any social discrimination. In the Dameng Village where the Xiangzhou Pig Breeding Farm will be built, is a Han concentrated village. Among the 80 HHs lessors, 7 HHs (9%) are Zhuang. These 7 Zhang people speak the Han language and have been integrated fully with the Han people. They have the same socio-economic status as Han group and intermarriage with Han people. They are not vulnerable and ADB's IP policy is not triggered.

Stakeholder Engagement. In November 2017, a mobilization meeting was organized by the township government, and village and village group leaders attended the meeting. Then internal discussion was conducted in each village group. All affected HHs were interviewed by the village leaders and all HHs accepted land lease after consultation.

Staff of New Hope, villagers, officials from township government and village committee, and representatives of the villagers joined the detailed measurement survey (location, area and owner of the land), and the impact table was signed by all the participants

During the consultation, the farmer's key concerns and New Hope's replies are presented in Table 3.7.

Table 3.7 Farmer's Queries and Replies during Consultation

	Query	Reply
1	How to determine the rent?	The rents will based on consultation with the villagers and will be compared with the local similar projects.

		The rent will also be based on the annual agricultural output, and will be higher than the annual agricultural output.
2	If the rent can be paid on time?	<ul style="list-style-type: none"> ● Local governments have checked the history and reputation of New Hope and New Hope paid the rent on time. ● Local government will closely monitor the payment of rent to ensure the villagers receive the rents without delay. ● For the first year, New Hope paid the rent to the township government and then the government paid to the farmers. Since the 2nd year, the rent will be paid to the villagers directly by New Hope.
3	If New Hope can provide some job opportunities to the communities?	Priorities will be provided to local farmers.

On 28 May 2018, all representatives approved land lease to New Hope.

Grievance Redress.

(1) Land Lease

The local government uses its existing grievance mechanism to deal with the problems induced by land lease and compensation, so the farmer could find relevant departments to solve their appeal and grievance. The basic procedures for grievance include the following:

If any farmer feels aggrieved by any aspect of the land lease and compensation, he/she can state his/her grievance and appeal to the village committee in oral or written form. If an oral appeal is made, the village committee will record it on paper and process it. The village committee will make a decision on it and the resolution will be made in two weeks. The aggrieved farmers can state the grievance and appeal to the township government in oral or in written form. The township government will make a decision on it and the resolution will be made in two weeks.

If the aggrieved farmer is not satisfied with the decision of the township government, he/she can appeal to the Land Resource Bureau, which will come up with a decision within two weeks.

Farmers can decide to go through the legal system directly and may decide not to use the project level grievance channels. By now, those agencies did not receive any appeal and grievance for land lease and compensation.

There is one community relationship officer from New Hope, who is responsible for dealing all the complaints from the local villagers. Since New Hope was involved in land leasing, the officer's contact information has been disclosed to the local villagers. Written procedures and documentation systems should be established.

(2) Employees

When the employee of the farm has complaints on labor issues, he/she can contact the HR Department.

(3) Contractors workers

During construction, New Hope will disclose the contact information (email address and telephone number) at the construction site.



(4) Local communities

If the local people have complaints towards the operation of the plant, they can call the Government service hotline 12345 to seek resolution. The government will transfer the complaints to the company and the company needs to provide replies. Written procedures and documentation systems should be established.

Gender and Labor. The farm gives local labor a priority. **Table 3.8** is the job opportunities which will be generated during different construction stage, and averagely 30% will be provided to the local people and 25% will be provided to women.

Table 3.8 Job Opportunities Generated During Construction

	15 th day	30 th day	45 th day	60 th day	75 th day	90 th day	105 th day	130 th day	145 th day	160 th day	175 th day
Total	270	464	559	670	805	775	580	461	456	446	356
Male	203	348	420	503	605	582	435	346	342	335	267
Female	67	116	139	167	200	193	145	115	114	111	89
Local	81	139	168	201	242	233	174	138	137	134	107

New Hope encourages and requires their contractors to hire workers from the local communities, and would select contractors who have good track records of compliance with the national labor laws (minimum wages, hours worked, benefits, prohibition of child labor and forced labor, etc.). The audit consultant reviewed the civil work contracts, which includes the key provisions:

- Payment of contract should first guarantee the wages of construction workers. The Contractor shall strictly comply with the relevant provisions of the relevant government and pay the wages of migrant workers on time;

- The contractor shall purchase insurance required by the law;

In order to protect the worker's rights, the contractors should provide guarantee fee for migrant worker's salary. The manager of the farm on site will check and monitor their performance. Labor Inspection Bureau under the Labor Bureau will inspect the farms to check if the Labor Law is complied with. If there is non-compliance issue reported by the local labor bureau, the contractor needs to pay 5% of the amount of the contract as breach of contract damages.

During operation, the estimated number of jobs is 353. It is estimated that 142 jobs (40%) can be provided to women, including accounting, cashier, sales management, etc. in finance department; production room supervisor and technicians in production department; veterinarian; logistic positions in feed factory and feeding department; other logistics positions at the farm; biosafety position, etc. 146 (41%) jobs will be provided to local people.

Discussion during the mission indicates that the subproject will promote women staff welfares through: (i) having separate toilets and changing rooms for men and women, (ii) couple workers will be provided with their own room, (iii) pregnant women who maybe working in areas exposed to chemicals like vaccines and animals with illnesses will be temporarily assigned with other tasks until they give birth. HR Policy will also consider the anti-sexual harassment provision and non-discrimination.

Table 3.9 Summary of Social Issues of Xiangzhou Pig Breeding Farm

No.	Concerned Item	Relevant Regulation(s) and/ or Standard(s)	Compliance Status (Fully Compliant/Partially Compliant/Non-compliant)	AECOM Comments	CAP
1.	Status of land acquisition/leasing (e.g. whether affected village collective is satisfied with the compensation, whether compensation amount is equivalent to replacement value, whether replacement land was provided to village collective, whether the subproject has legal tenure over the land)	Land Administration Law Land Contract Law Organization Law of the Villagers Committees Basic Farmland Protection Regulation	Fully Compliant	The land leasing and demolition of 3 chicken house contract is based on negotiation. Compensation was paid and new chicken houses have been built. Full consultation was conducted before signing the land lease contract. The local government plays a key role in organizing the consultation activities and supervising New Hope's performance, especially if the rent is paid on time.	A wall for these graves should be built before operation.
2.	Outstanding issues, complaints or grievances and the resolution status related to local community	ADB SPS 2009: Grievance redress mechanism Land Contract Law		By now, there is no complaint. There is existing GRM in the government.	Documentation system needs to be established.
3.	Effects of subproject facilities/activities on ethnic minorities	Law of PRC on Regional National Autonomy; and Regulation on the Work of Administrative Urban Ethnic Minority	NA	Dameng Village Committee is a Han concentrated village. Among the 80 HHs lessors, 7 HHs are Zhuang.	No
4.	Gender and development issues (e.g. whether the	People's Republic of China on the Protection of Rights	Fully Compliant	For couple workers, the farm provides family rooms.	Subproject/plant to promote women staff welfares through: (i)

	Company or its subsidiaries in various locations have a policy related to supporting the rights of women and ensuring women's participation in project activities, whether opportunity for equal employment and promotion is ensured for men and women, whether there is specific benefit provided to women, etc.)	and Interests of Women		<p>Priorities will be provided to women if the jobs are more appropriate for female staff.</p> <p>It will also target at least 35% of workers during operation are women.</p>	<p>having separate toilets and changing rooms for men and women, (ii) couple workers will be provided with their own room, (iii) pregnant women who maybe working in areas exposed to chemicals like vaccines and animals with illnesses will be temporarily assigned with other tasks until they give birth. HR Policy will also consider the anti-sexual harassment provision and non-discrimination.</p> <p>Performance on gender issues should be included in the AESPR.</p>
5.	Labor and social protection (e.g. whether the company follows ILO core labor standards, issues related to contractor management and regulations, worker's accommodation, local labor recruitment policy, training, etc.)	<p>WBG General EHS Guidelines: Worker's Accommodation: Process and Standards</p> <p>China Labor Law (1995) and the Labor Contract Law (2008)</p>	Fully Compliant	<p>In order to protect the worker's rights, the contractors should provide guarantee fee for migrant worker's salary. If there is non-compliance issue reported by the local labor bureau, the contractor needs to pay 5% of the amount of the contract as breach of contract damages.</p>	<p>Performance on labor issues should be included in the AESPR.</p> <p>New Hope should monitor its contractors and subcontractors to ensure that national labor laws (min wages and mandated benefits are provided, hours worked, issuance of contracts, etc) are complied with and CLS principles practiced (no child labor, no discrimination, no force labor, freedom of association)</p>

1.1.3 Corrective Action Plan

No.	Concerned Item 有关项目	Corrective Action(s)纠正行动	Responsible Party(ies) 负责方	Indicative Cost 指标性成本	Suggested Time Frame 建议实践框架
Subproject 3 - Xiangzhou Pig Breeding Farm 象州项目					
1.	Construction Environmental and Social Management (CESMP) – management plans 建设期环境与社会管理 – 管理计划	<p>According to the EIA, there will be 30 workers during construction phase; however, according to the interview, the maximum number of workers will be around 500 to 800. 根据环评，项目建设期会有 30 名员工同时施工。但据采访，项目在施工高峰期会有 500 到 800 名员工在场。</p> <p>The number of workers will be confirmed and ensure that environmental impacts of the workers be assessed and managed with proposed mitigation measures in the construction environmental and social management plan (CESMP). The plan will include management structure and responsibilities by contractors, subproject company and at corporate level; budget, training plan, monitoring (see next item #27). 建设期的员工数量应再次确认，以准确预估及管理员工在施工期造成的环境影响，并制定对应的缓解措施。建设期环境与社会管理计划应包括组织管理架构及责任人（总部，子项目，及建筑承包商），预算，培训计划，及监测（见第 27 项）。</p> <p>Building on existing CESMP, the revised CESMP will include: 在现有的施工期环境与社会管理计划的基础上，应新增：</p> <ul style="list-style-type: none"> Workers accommodation to meet Chinese, IFC and ILO standards, i.e. safe structures, clean and sanitary conditions, easy access with separate arrangements for females and males 参考国内，世界银行，及国际劳工标准制定工人住宿标准（如：安全结构，清洁状况，卫生状况，性别分离安排等） Proper collection and disposal of waste and effluents 垃圾收集及运输和污水收集及处理的要求 All workers have access to clean water for consumption and washing 所有工人都可以获得清洁的水进行使用和洗涤 Chance find procedures for physical cultural resources 文物保护机制 	New Hope/ Subproject Company 新希望/子公司	Staff time 员工工作时数	CESMP be developed/ revised prior to disbursement 在贷款拨付前完成

		<ul style="list-style-type: none"> Environmental management measures as outlined in the EIA (dust and noise control etc.) 环评列出的环境管理措施（如：扬尘及噪音控制等） Reference to Huanghua project's health and safety management system 参考黄骅项目的健康安全管理系统 			
2.	Construction Environmental and Social Management (CESMP) – Monitoring 建设期环境与社会管理 – 监测	<p>Mitigation measures for each environmental aspect be monitored with a monitoring plan to include budget, monitoring item, methodology, location, frequency, and the corresponding national standards per EIA and international standards per gaps identified in this report</p> <p>应制定监测计划以监督各环境缓解措施的实施情况。监测计划应包括：预算，监测项目，方法，地点，频率，及环评列出的相关国家标准/国际标准。</p> <p>The revised monitoring plan will include: 修订后的监测计划应包括：</p> <ul style="list-style-type: none"> Noise monitoring 噪音监测 Waste monitoring (hazardous and non-hazardous waste) 废物监测（有害及无害废物） Dust control monitoring 扬尘控制监测 Workers accommodation inspections 工人宿舍环境检查 Health and Safety monitoring 健康安全检查 	New Hope/ Subproject Company 新希望/子公司	Staff time 员工工作时数	CESMP be developed/ revised prior to disbursement 在贷款拨付前完成修订
3.	Construction Completion Report 竣工报告	<p>When construction is completed, two construction completion reports will be developed</p> <p>1 Initial construction completion report on</p> <p>1.初步竣工报告,内容包括:</p> <ul style="list-style-type: none"> report on compliance, incidents and grievance during construction period, including consultation records with community that there are no remaining issues. 报告施工期间的合规，事件和投诉。包括与公众的咨询记录以证明项目没有遗留问题。 	New Hope/ Subproject Company 新希望/子公司	Staff time 员工工作时数	Initial construction completion report: be delivered within 3 months after construction completion.

		<ul style="list-style-type: none"> present monitoring records and site inspection photos, including but not limited to: 提交监督记录和场地巡查的照片，包括但不限于： <ul style="list-style-type: none"> Healthy and safety monitoring and incident reports, follow-ups etc; 健康安全相关的监督报告及事故报告，以及后续发展等； Waste management records/ contracts; 废物管理的记录/合同； Construction completion inspection approval by NH and by the government; 新希望和政府的竣工验收批复； confirm if any legacy issues remain from construction. 确认工程的遗留问题。 <p>2 Construction completion acceptance report 2. 竣工验收报告</p> <ul style="list-style-type: none"> update on status of approval and permits obtained, construction completion acceptance/ inspection records 对各项证明（如：排污许可证，运营许可证，取水证）的更新，竣工验收的记录； Update (if any) on follow-up actions from the initial construction completion report. 对初步竣工报告的跟进行动结果（如有） 			<p>初步竣工报告 工程完结的三个月内完成</p> <p>Construction completion acceptance report: Within 3 months of construction completion acceptance after trial operation</p> <p>竣工验收报告于试运完成，竣工验收后三个月内完成</p>
4.	Operation ESMP (OESMP) – Management Plans 运营期环境与社会管理计划 – 管理计划	<p>In addition to the management measures outlined in the EIA, the OESMP will also include project-specific management plans on: 除了环评列举的管理措施以外，运营期环境与社会管理计划还需要包括下列措施：</p> <ol style="list-style-type: none"> Occupational Health and Safety 职业健康及安全 Emergency Response Plans 应急管理计划 Waste management (with identified waste contractors, fertilizer companies, monitoring records) 固废管理（列出合作的固废处理商，肥料商，监测记录） 	New Hope/ Subproject Company 新希望/子公司	Staff time 员工工作时数	<p>OESMP developed before disbursement and implemented immediately from operation</p> <p>在贷款拨付前完成，并尽快在运营期实施</p>

		<p>4. Training plan for E&S management, with training topic, timing, targeted participants etc. 针对安环管理的培训计划（培训项目，时间，针对的培训对象等）。</p>			
5.	<p>Operation ESMP (OESMP) – Management and Resources</p> <p>运营期环境与社会管理计划 – 管理及资源</p>	<p>The OESMP should indicate budget (per year), organizational/ management structure of its implementation (responsible parties and reporting lines) at subproject level to corporate level.</p> <p>运营期环境与社会管理计划应包括：预算（每年），组织管理架构，及从总部到子公司的相关责任人。</p>	<p>New Hope/ Subproject Company</p> <p>新希望/子公司</p>	<p>Staff time</p> <p>员工工作时数</p>	<p>OESMP developed before disbursement and implemented immediately from operation</p> <p>在贷款拨付前完成，并尽快在运营期实施</p>
6.	<p>Operation ESMP (OESMP) – Monitoring plan:</p> <p>运营期环境与社会管理计划 – 监测</p>	<p>Revise the environmental management plan in the EIA to include an Operation E&S Monitoring Plan, specifying monitoring standards, location, frequency, responsible party and total budget. 对环评的环境管理计划进行修订，加入运营期安环监测计划，列明各项监测的相关标准，监测地点，频率，责任单位及预算。</p> <p>The monitoring plan will include: 监测计划应包括：</p> <ol style="list-style-type: none"> 1. Per EIA monitoring requirements for operational phase: 据环评对运营期的监测要求： <ul style="list-style-type: none"> (i) noise monitoring quarterly 噪音监测（每季度一次） (ii) ammonia and H₂S at site boundary quarterly. The project company should conduct monitoring on odour accordingly. 厂界 NH₃ 及 H₂S 监测（每季度一次）。 2. Conduct regular testing (minimum every 6 months) of treated manure against the Hygienic Requirements for Harmless Disposal of Night Soil (GB7959-1987) and conduct testing at a higher frequency as needed.. 根据《粪便无害化卫生标准》（GB7959-1987），对处理后的猪粪定期至少每半年一次进行监测，可按实际情况加密频率。 	<p>New Hope/ Subproject Company</p> <p>新希望/子公司</p>	<p>Staff time</p> <p>员工工作时数</p>	<p>OESMP developed before disbursement and implemented immediately from operation</p> <p>在拨付前完成，并尽快在运营期实施</p>

		<p>3. Develop monthly monitoring for treated effluent used for irrigation in line with national Standards, including antibiotics residue</p> <p>根据相关的国家标准，对处理后用于农灌的排污水进行监测（按实际情况调整，至少每季一次）。监测应包括抗生素遗留项目。</p> <p>4. Groundwater monitoring at least quarterly</p> <p>地下水监测（每季度一次）</p> <p>Maintain hazardous waste transfer register as record for each transfer. Regularly inspect and monitor hazardous waste storage areas (minimum monthly monitoring) and general waste storage areas, maintain general waste generation and disposal records 保留危废转移联单为每次转移作记录。定期（至少每月一次）巡查危废储存设施与一般废物收集地点。保持一般废物生产与弃置记录。</p> <p>5. Health and Safety monitoring per Health and Safety Management Plan</p> <p>根据健康安全管理计划对健康与安全进行监测</p>			
7.	Grievance Redress Mechanism (GRM) 申诉机制	<p>With reference to the corporate level GRM in the ESMS, a subproject specific GRM will be developed to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental and social performance.</p> <p>子公司应参考总部层面环境与安全管理制度的申诉机制，建立子公司层面的申诉机制应对受影响人对公司在环境和社会方面的顾虑及投诉。</p>	New Hope/ Subproject Company 新希望/子公司	Staff time 员工工作时数	Before disbursement 贷款拨付前
8.	Protection of the graves 墓地保护	<p>A wall serve as a fence separating the project area and the village grave area should be built before operation.</p> <p>运营前应架设墙以将墓地与项目区域分开。</p>	Subproject Company 子公司	Include in the project cost 包含在项目经费内	Before operation 运营前
9.	Grievance, Stakeholder Engagement, Gender and Development, Labor and Working Conditions	<p>New Hope is suggested to follow its relevant procedures to maintain reasonable stakeholder engagement, gender and development, labor and social protection, and document these practices in the annual E&S performance report.</p>	Subproject Company 子公司	Staff time 员工工作时数	Within 1 year from the disbursement for the purpose of financing the first subproject

	<p>申诉机制，利益相关者的参与，性别和发展，员工及工作环境</p>	<p>建议新希望遵循其相关的程序，保持利益相关者的参与，性别和发展，劳工及社会保护等方面，并把这些实践纳入年度安环报告。</p> <p>Subproject and contractors/subcontractors to comply with the national labor laws and take measures to comply with the relevant ILO core labor standards, as per ADB's Social Protection Strategy (2001).</p> <p>子项目，承包商/分包商将遵守国家的劳动法，并采取措施去遵守相关的核心劳工标准，以及亚行的社会保护战略（2001）</p>			<p>在第一个融资的项目贷款拨付后的一年内</p>
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